

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

**(19) World Intellectual Property Organization  
International Bureau**



A standard linear barcode is located at the bottom of the page, spanning most of the width.

**(43) International Publication Date  
18 December 2003 (18.12.2003)**

PCT

(10) International Publication Number  
**WO 2003/104601 A3**

**(51) International Patent Classification<sup>7</sup>:** E21B 19/16

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, I.R., LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,  
SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN,  
YU, ZA, ZM, ZW

(21) International Application Number:

(22) International Filing Date: 5 May 2003 (05.05.2003)

**(25) Filing Language:** English

**(26) Publication Language:** English

(30) Priority Data: 60/387,486 10 June 2002 (10.06.2002) US

(84) **Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declaration under Rule 4.17:**

— *of inventorship (Rule 4.17(iv)) for US only*

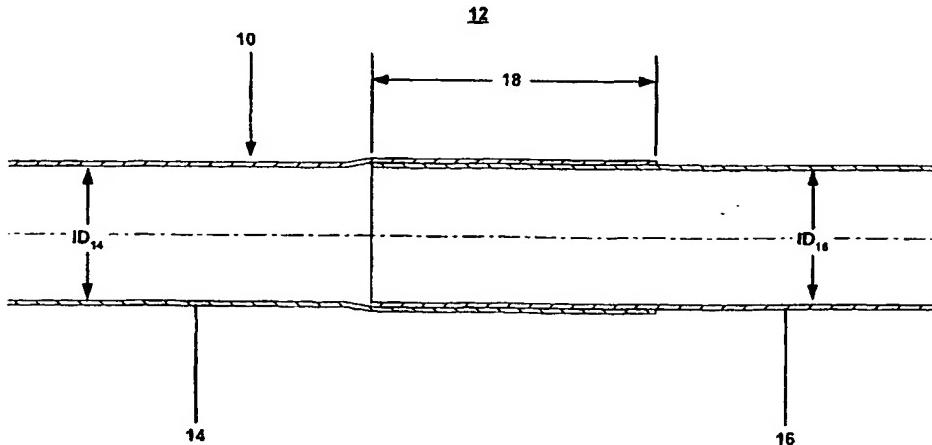
**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:  
15 July 2004

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**(54) Title: MONO-DIAMETER WELLBORE CASING**



02003/104601 A3

**(57) Abstract:** A mono diameter wellbore casing (14, 16).

BEST AVAILABLE COPY

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/13787

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : E21B 19/16  
 US CL : 166/380,207

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
 U.S. : 166/120-122,187,206,207,380,382,387

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 East: (diameter\$1 with (casing pipe conduit tub\$5))

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,142,230 A (SMALLEY et al.) 07 November 2000 (07.11.2000), see entire document, especially Figs 6-11.	1-10, 19-36
X	US 6,263,968 B1 (FREEMAN et al.) 24 July 2001 (24.07.2001), see entire document, especially Figs. 4-9.	1, 6
A, P	US 6,497,289 B1 (COOK et al.) 24 December 2002 (24.12.2002), see entire document.	1-36

<input type="checkbox"/>	Further documents are listed in the continuation of Box C.	<input type="checkbox"/>	See patent family annex.
*	Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E"	earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search  26 June 2003 (26.06.2003)	Date of mailing of the international search report  28 MAY 2004
Name and mailing address of the ISA/US  Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703)305-3230	Authorized officer  Zakiya N. Walker  Telephone No. (703) 308-2168  <i>Zakiya N. Walker</i>

Form PCT/ISA/210 (second sheet) (July 1998)